

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A reflector made of glass for a projector comprising amorphous glass having a thermal expansion coefficient of 30 to $45 \times 10^{-7}/^{\circ}\text{C}$ and including a reflective surface for reflecting light emitted from a light source and an opening for inserting a light source bulb or a conductor to said light source bulb, wherein $[[:]$ said opening is smoothed by heat-treating the surface thereof after opening-drilling, thus mechanical damage is removed from $[[\text{the}]]$ a processed part.

Claim 2 (Original): A reflector made of glass for a projector according to Claim 1, wherein said opening is smoothed by applying a flame by a burner.

Claim 3 (Currently Amended): A reflector made of glass for a projector according to Claim 2, wherein the mean roughness of said smoothed ~~surface~~ opening is $0.03 \mu\text{m}$ or less.

Claim 4 (Currently Amended): A reflector made of glass for a projector according to Claim 1, wherein said opening is smoothed by applying a flame by a burner and the mean roughness of said smoothed ~~surface~~ opening is $0.03 \mu\text{m}$ or less.

Claim 5 (Original): A reflector made of glass for a projector according to Claim 4, wherein said reflective surface is in a shape of a rotational elliptical surface or a rotational parabolic surface and the surface accuracy in the neighborhood of said opening is less than $\pm 20 \mu\text{m}$ for an ideal curved surface.

Claim 6 (Original): A reflector made of glass for a projector according to Claim 1, wherein said opening is smoothed by radiation of a laser beam.

Claim 7 (Original): A reflector made of glass for a projector according to Claim 6, wherein said reflective surface is in a shape of a rotational elliptical surface or a rotational parabolic surface and the surface accuracy in the neighborhood of said opening is less than $\pm 20\mu\text{m}$ for an ideal curved surface.

Claim 8 (Currently Amended): A reflector made of glass for a projector comprising amorphous glass having a thermal expansion coefficient of 30 to $40 \times 10^{-7}/^{\circ}\text{C}$ and including a reflective surface for reflecting light emitted from a light source and an opening for inserting a light source bulb or a conductor to said light source bulb, wherein $[[:]]$ said opening is smoothed by applying a flame to the surface thereof by a burner after opening-drilling and the mean roughness of said smoothed surface is $0.03\ \mu\text{m}$ or less.

Claim 9 (Original): A reflector made of glass for a projector according to Claim 8, wherein said reflective surface is in a shape of a rotational elliptical surface or a rotational parabolic surface and the surface accuracy in the neighborhood of said opening is less than $\pm 20\ \mu\text{m}$ for an ideal curved surface.

Claims 10-15 (Canceled).

Claim 16 (New): The reflector according to claim 1, wherein said amorphous glass is a borosilicate glass or an aluminosilicate glass.

Claim 17 (New): The reflector according to claim 1, wherein a composition of said amorphous glass is approximately 80.9% SiO₂, 2.3% Al₂O₃, 4% Na₂O, and 12.7% B₂O₃.

Claim 18 (New): The reflector according to claim 1, wherein a composition of said amorphous glass is approximately 78% SiO₂, 2.1% Al₂O₃, 5.2% Na₂O, and 14.5% B₂O₃.

Claim 19 (New): The reflector according to claim 1, wherein said opening is defined as a region from an end of the opening to about 20 mm from the end of the opening in a radial direction.

Claim 20 (New): A glass reflector with heat-resistance for a projector, comprising:
a curved reflective surface portion for reflecting light emitted from a light source bulb; and

an opening portion drilled through the curved reflective surface portion to insert the light source bulb or a conductor to the light source bulb, wherein the glass reflector made of amorphous glass with thermal expansion coefficient of $30 \text{ to } 45 \times 10^{-7}/^{\circ}\text{C}$, and the opening portion has a fire-polished surface with a mean roughness of 0.03 μm or less without mechanical damage.

Claim 21 (New): A glass reflector with heat-resistance for a projector according to Claim 20, wherein an operating temperature of the curved reflective surface portion and the opening portion is approximately 450°C.